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09/241,853	02/02/1999	TIMOTHY L KOHLER	36J.P187	9230

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EXAMINER	
POKRZYWA, JOSEPH R	
ART UNIT	**PAPER NUMBER**
2622	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/241,853	KOHLER ET AL.	
	Examiner	Art Unit	
	Joseph R. Pokrzywa	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-90* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *27-43 and 72-88* is/are allowed.

6)☒ Claim(s) *1-26,44-71,89 and 90* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 February 1999* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The references listed in the Information Disclosure Statement submitted on 2/2/99 have been considered by the examiner (see attached PTO-1449).

Drawings

2. The drawings are objected to because of the problems addressed in the attached PTO-948. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. **Claims 1 and 46** are rejected under 35 U.S.C. 102(b) as being anticipated by Henderson (U.S. Patent Number 5,450,165).

Regarding ***claim 1***, Henderson discloses computer-executable process steps (column 7, lines 60 through 64, and column 8, lines 47 through 54) to provide an application programming interface (API, being interpreted as detector 104, seen in Fig. 3), with the API providing a common interface between an application program and plural different types of color measuring devices (densitometers 24a-24e, seen in Figs. 1 and 2, column 4, lines 47 through 67, and column 6, lines 44 through 65) each having at least one color measuring sensor (column 4, lines 47 through 54), the computer-executable process steps comprising plural functions for operating any of the plurality different types of color measuring devices (column 4, lines 38 through 54), wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times (column 6, lines 2 through 15) which is different for at least two different types of color measuring devices (column 4, line 59 through column 5, line column 6, line 44 through column 7, line 10), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 7, lines 43 through 64).

Regarding ***claim 46***, Henderson discloses a computer-readable medium (column 7, lines 60 through 64, and column 8, lines 47 through 54, being inherent in a for a programmed

microprocessor) which stores computer-executable process steps (column 7, lines 60 through 64, and column 8, lines 47 through 54), with the steps to provide an application programming interface (API, being interpreted as detector 104, seen in Fig. 3), with the API providing a common interface between an application program and plural different types of color measuring devices (densitometers 24a-24e, seen in Figs. 1 and 2, column 4, lines 47 through 67, and column 6, lines 44 through 65) each having at least one color measuring sensor (column 4, lines 47 through 54), the computer-executable process steps comprising plural functions for operating any of the plurality different types of color measuring devices (column 4, lines 38 through 54), wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times (column 6, lines 2 through 15) which is different for at least two different types of color measuring devices (column 4, line 59 through column 5, line column 6, line 44 through column 7, line 10), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 7, lines 43 through 64).

5. **Claims 45 and 90** are rejected under 35 U.S.C. 102(b) as being anticipated by Sherman *et al.* (U.S. Patent Number 5,537,516, cited in the Information Disclosure Statement dated 2/2/99).

Regarding ***claim 45***, Sherman discloses a color calibration program comprising computer-executable process steps to calibrate color fidelity of a color printer (see abstract, and column 7, lines 10 through 43) based on color measurements made by a color measuring device

of color patches printed on a recording medium by the color printer (see abstract, and column 13, line 15 through column 14, line 35), with the computer executable steps comprising code to generate print data for the color patches (column 8, line 40 through column 9, line 27, column 9, lines 54 through 57, and column 10, lines 38 through 67), code to send the print data to the color printer so as to print the color patches on the recording medium (column 10, line 38 through column 11, line 7), code to make color measurements of the color patches printed on the recording medium using any of plural different types of color measuring devices (see abstract, and column 11, lines 8 through 33, column 13, line 31 through column 14, line 34), with the code to make color measurements calling functions provided by an application programming interface (API) that provides a common interface to the plural different types of color measuring devices (column 13, line 46 through column 14, line 34), the code to make color measurements using the common interface (column 13, line 31 through column 14, line 35, and column 17, lines 20 through 47), and code to calibrate color fidelity of the color printer based on the color measurements (column 7, lines 22 through 47, and column 17, lines 35 through 47).

Regarding ***claim 90***, Sherman discloses a computer-readable medium storing a color calibration program (column 3, line 61 through column 4, line 4, and column 7, lines 10 through 43, being inherent in a computer), with the program comprising computer-executable process steps to calibrate color fidelity of a color printer (see abstract, and column 7, lines 10 through 43) based on color measurements made by a color measuring device of color patches printed on a recording medium by the color printer (see abstract, and column 13, line 15 through column 14, line 35), with the computer executable steps comprising code to generate print data for the color patches (column 8, line 40 through column 9, line 27, column 9, lines 54 through 57, and column

10, lines 38 through 67), code to send the print data to the color printer so as to print the color patches on the recording medium (column 10, line 38 through column 11, line 7), code to make color measurements of the color patches printed on the recording medium using any of plural different types of color measuring devices (see abstract, and column 11, lines 8 through 33, column 13, line 31 through column 14, line 34), with the code to make color measurements calling functions provided by an application programming interface (API) that provides a common interface to the plural different types of color measuring devices (column 13, line 46 through column 14, line 34), the code to make color measurements using the common interface (column 13, line 31 through column 14, line 35, and column 17, lines 20 through 47), and code to calibrate color fidelity of the color printer based on the color measurements (column 7, lines 22 through 47, and column 17, lines 35 through 47).

6. **Claims 1-26, 44, 46-71, and 89** are rejected under 35 U.S.C. 102(e) as being anticipated by Chao (U.S. Patent Number 6,404,517).

Regarding ***claim 1***, Chao discloses computer-executable process steps (column 9, lines 28 through 39) to provide an application programming interface (API, interpreted as the image processing unit 14, seen in Fig. 4, and column 9, lines 6 through 27), with the API providing a common interface between an application program and plural different types of color measuring devices each having at least one color measuring sensor (see Figs. 1A and 2, and column 6, line 38 through column 7, line 9), the computer-executable process steps comprising plural functions for operating any of the plurality different types of color measuring devices (column 6, line 38 through column 7, line 9, and column 7, line 61 through column 8, line 67), wherein in order to

complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices (see Fig. 2, column 6, lines 41 through 48, and column 7, lines 34 through column 8, line 47, wherein the registration mark processor 66 and the calibration unit 54 are called when scanner 18 is operated, whereas only the calibration unit 54 is called when operating measuring device 46), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 3, line 56 through column 4, line 14, column 6, lines 49 through 61, and column 7, lines 34 through 60).

Regarding ***claim 2***, Chao discloses the process steps discussed above in claim 1, and further teaches that the flow control data is provided by the function which must be called the number of times in order to complete the operation (column 6, lines 41 through 61, and column 8, lines 6 through 47).

Regarding ***claim 3***, Chao discloses the process steps discussed above in claim 2, and further teaches that the flow control data is provided in the form of a call-again value (column 7, lines 34 through 47).

Regarding ***claim 4***, Chao discloses the process steps discussed above in claim 2, and further teaches that flow control data is provided in the form of a numerical value (column 7, lines 34 through 47).

Regarding ***claim 5***, Chao discloses the process steps discussed above in claim 1, and further teaches that the flow control data is provided by a separate function other than the

function which must be called the number of times in order to complete the operation (column 8, lines 6 through 67).

Regarding ***claim 6***, Chao discloses the process steps discussed above in claim 1, and further teaches that functions in the API provide the application program with display values which are different for at least two different types of color measuring devices (registration marks, seen in Fig. 3, column 8, lines 6 through 47), the display values for display to a user so as to instruct the user in manipulating the color measuring device that is being operated (column 7, lines 48 through 60, and column 8, lines 48 through 67).

Regarding ***claim 7***, Chao discloses the process steps discussed above in claim 6, and further teaches that the plural functions for operating any of the plural different types of color measuring devices further comprise a function to calibrate a relative position of a recording medium with respect to any of the plural different types of color measuring devices (column 6, lines 17 through 66, and column 8, lines 13 through 47), a function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices (column 6, lines 17 through 61), a function to relatively position any of the color measuring sensors and a color patch for any of the plural different types of color measuring devices (column 8, lines 13 through 67), the move-to-patch function being provided with a logical color patch number by the application program (column 98, lines 9 through 47), and a function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned (column 8, line 40 through column 9, line 5), the make-measurement function providing the application program with a color measurement value for the color patch (column 9, lines 1 through 5).

Regarding ***claim 8***, Chao discloses computer-executable process steps (column 9, lines 28 through 39) to provide an application programming interface (API, interpreted as the image processing unit 14, seen in Fig. 4, and column 9, lines 6 through 27), with the API providing a common interface between an application program and plural different types of color measuring devices each having at least one color measuring sensor (see Figs. 1A and 2, and column 6, line 38 through column 7, line 9), the computer-executable process steps comprising plural functions for operating any of the plurality different types of color measuring devices (column 6, line 38 through column 7, line 9, and column 7, line 61 through column 8, line 67), the plural functions comprising a calibrate-position function to calibrate a relative position of a recording medium with respect to any of the plural different types off color measuring devices (column 6, lines 17 through 66, and column 8, lines 13 through 47), a calibrate-sensor function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices (column 6, lines 17 through 61), a move-to-patch function to relatively position any of the color measuring sensors and a color patch (column 8, lines 13 through 67) being provided with a logical color patch number by the application program (column 98, lines 9 through 47), and a make-measurement function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned (column 8, line 40 through column 9, line 5), the make-measurement function providing the application program with a color measurement value for the color patch (column 9, lines 1 through 5), wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices (see Fig. 2, column 6, lines 41 through 48, and column 7, lines 34 through column 8, line

47, wherein the registration mark processor 66 and the calibration unit 54 are called when scanner 18 is operated, whereas only the calibration unit 54 is called when operating measuring device 46), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 3, line 56 through column 4, line 14, column 6, lines 49 through 61, and column 7, lines 34 through 60).

Regarding ***claim 9***, Chao discloses the process steps discussed above in claim 8, and further teaches that the calibrate-position function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct a user to position the recording medium or to position any of the color measuring sensors (column 7, lines 48 through 60, and column 8, lines 48 through 67).

Regarding ***claim 10***, Chao discloses the process steps discussed above in claim 8, and further teaches that the calibrate-sensor function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct a user in calibrating the sensor (column 8, lines 14 through 67).

Regarding ***claim 11***, Chao discloses the process steps discussed above in claim 8, and further teaches that the move-to-patch causes the color measuring device to move any of the color measuring sensors so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 48 through 67).

Regarding ***claim 12***, Chao discloses the process steps discussed above in claim 8, and further teaches that the move-to-patch function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6

through 47) so as to instruct a user to manipulate any of the color measuring devices so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 14 through 67).

Regarding ***claim 13***, Chao discloses the process steps discussed above in claim 8, and further teaches that the move-to-patch function causes the color measuring device to move the recording medium so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 48 through 67).

Regarding ***claim 14***, Chao discloses the process steps discussed above in claim 8, and further teaches that the move-to-patch function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct the user to move the recording medium so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 14 through 67).

Regarding ***claim 15***, Chao discloses the process steps discussed above in claim 8, and further teaches that the move-to-patch function provides the application program with a recalibrate value in a case that the relative position of the recording medium needs to be recalibrated (column 7, lines 23 through 60).

Regarding ***claim 16***, Chao discloses the process steps discussed above in claim 8, and further teaches that the make-measurement function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct the user in making the color measurement (column 8, lines 14 through 67).

Regarding ***claim 17***, Chao discloses the process steps discussed above in claim 8, and further teaches that the make-measurement function provides the application program with a recalibrate value in a case that any of the color measuring sensors needs to be recalibrated (column 7, lines 23 through 60).

Regarding ***claim 18***, Chao discloses the process steps discussed above in claim 8, and further teaches that the flow control data is provided by the function which must be called the number of times in order to complete the operation (column 6, lines 41 through 61, and column 8, lines 6 through 47).

Regarding ***claim 19***, Chao discloses the process steps discussed above in claim 18, and further teaches that the flow control data is provided in the form of a call-again value (column 7, lines 34 through 47).

Regarding ***claim 20***, Chao discloses the process steps discussed above in claim 18, and further teaches that the flow control data is provided in the form of a numerical value (column 7, lines 34 through 47).

Regarding ***claim 21***, Chao discloses the process steps discussed above in claim 8, and further teaches that the plural functions further comprise a get-device-capabilities function to provide the application program with the flow control data (column 7, lines 23 through 47, and column 8, lines 32 through 37).

Regarding ***claim 22***, Chao discloses the process steps discussed above in claim 8, and further teaches that the plural functions in the API call device driver functions for the plural different types of color measuring devices (column 7, lines 23 through 47).

Regarding ***claim 23***, Chao discloses the process steps discussed above in claim 8, and further teaches that the computer-executable process steps are stored in a dynamically linkable library (column 9, lines 6 through 39).

Regarding ***claim 24***, Chao discloses the process steps discussed above in claim 8, and further teaches that the plural different types of color measuring devices include XY tables and hand-held patch readers (column 1, lines 11 through 37, column 3, lines 2 through 33, and column 6, lines 31 through 66).

Regarding ***claim 25***, Chao discloses the process steps discussed above in claim 8, and further teaches that the plural different types of color measuring devices include spectrometers and densitometers (column 6, lines 31 through 66).

Regarding ***claim 26***, Chao discloses the process steps discussed above in claim 8, and further teaches that the application program is a color calibration program (see abstract, and column 9, lines 6 through 39).

Regarding ***claim 44***, Chao discloses a dynamically linkable library (DLL, interpreted as the image processing unit 14, seen in Fig. 4, and column 9, lines 6 through 27) for making color measurements with any of plural different types of color measuring devices each having at least one color measuring sensor (see Figs. 1A and 2, and column 6, line 38 through column 7, line 9), the DLL comprising plural functions each of which is for operating any of the plural different types of color measuring devices (column 6, line 38 through column 7, line 9, and column 7, line 61 through column 8, line 67), with the plural functions comprising a calibrate-position function to calibrate a relative position of a recording medium with respect to any of the plural different types of color measuring devices (column 6, lines 17 through 66, and column 8, lines 13 through

47), a calibrate-sensor function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices (column 6, lines 17 through 61), a move-to-patch function to relatively position any of the color measuring sensors and a color patch for any of the plural different types of color measuring devices (column 8, lines 13 through 67), the move-to-patch function being provided with a logical color patch number (column 98, lines 9 through 47), and a make-measurement function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned (column 8, line 40 through column 9, line 5), the make-measurement function providing the application program with a color measurement value for the color patch (column 9, lines 1 through 5), wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices (see Fig. 2, column 6, lines 41 through 48, and column 7, lines 34 through column 8, line 47, wherein the registration mark processor 66 and the calibration unit 54 are called when scanner 18 is operated, whereas only the calibration unit 54 is called when operating measuring device 46), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 3, line 56 through column 4, line 14, column 6, lines 49 through 61, and column 7, lines 34 through 60).

Regarding ***claim 46***, Chao discloses a computer-readable medium (column 9, lines 28 through 39) which stores computer-executable process steps, with the computer-executable process steps (column 9, lines 28 through 39) to provide an application programming interface (API, interpreted as the image processing unit 14, seen in Fig. 4, and column 9, lines 6 through

27), with the API providing a common interface between an application program and plural different types of color measuring devices each having at least one color measuring sensor (see Figs. 1A and 2, and column 6, line 38 through column 7, line 9), the computer-executable process steps comprising plural functions for operating any of the plurality different types of color measuring devices (column 6, line 38 through column 7, line 9, and column 7, line 61 through column 8, line 67), wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices (see Fig. 2, column 6, lines 41 through 48, and column 7, lines 34 through column 8, line 47, wherein the registration mark processor 66 and the calibration unit 54 are called when scanner 18 is operated, whereas only the calibration unit 54 is called when operating measuring device 46), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 3, line 56 through column 4, line 14, column 6, lines 49 through 61, and column 7, lines 34 through 60).

Regarding ***claim 47***, Chao discloses the medium discussed above in claim 46, and further teaches that the flow control data is provided by the function which must be called the number of times in order to complete the operation (column 6, lines 41 through 61, and column 8, lines 6 through 47).

Regarding ***claim 48***, Chao discloses the medium discussed above in claim 47, and further teaches that the flow control data is provided in the form of a call-again value (column 7, lines 34 through 47).

Regarding ***claim 49***, Chao discloses the medium discussed above in claim 47, and further teaches that flow control data is provided in the form of a numerical value (column 7, lines 34 through 47).

Regarding ***claim 50***, Chao discloses the medium discussed above in claim 46, and further teaches that the flow control data is provided by a separate function other than the function which must be called the number of times in order to complete the operation (column 8, lines 6 through 67).

Regarding ***claim 51***, Chao discloses the medium discussed above in claim 46, and further teaches that functions in the API provide the application program with display values which are different for at least two different types of color measuring devices (registration marks, seen in Fig. 3, column 8, lines 6 through 47), the display values for display to a user so as to instruct the user in manipulating the color measuring device that is being operated (column 7, lines 48 through 60, and column 8, lines 48 through 67).

Regarding ***claim 52***, Chao discloses the medium discussed above in claim 51, and further teaches that the plural functions for operating any of the plural different types of color measuring devices further comprise a function to calibrate a relative position of a recording medium with respect to any of the plural different types of color measuring devices (column 6, lines 17 through 66, and column 8, lines 13 through 47), a function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices (column 6, lines 17 through 61), a function to relatively position any of the color measuring sensors and a color patch for any of the plural different types of color measuring devices (column 8, lines 13 through 67), the move-to-patch function being provided with a logical color patch number by the

application program (column 98, lines 9 through 47), and a function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned (column 8, line 40 through column 9, line 5), the make-measurement function providing the application program with a color measurement value for the color patch (column 9, lines 1 through 5).

Regarding ***claim 53***, Chao discloses a computer readable medium (column 9, lines 28 through 39) storing computer-executable process steps, with the computer-executable process steps (column 9, lines 28 through 39) to provide an application programming interface (API, interpreted as the image processing unit 14, seen in Fig. 4, and column 9, lines 6 through 27), with the API providing a common interface between an application program and plural different types of color measuring devices each having at least one color measuring sensor (see Figs. 1A and 2, and column 6, line 38 through column 7, line 9), the computer-executable process steps comprising plural functions for operating any of the plurality different types of color measuring devices (column 6, line 38 through column 7, line 9, and column 7, line 61 through column 8, line 67), the plural functions comprising a calibrate-position function to calibrate a relative position of a recording medium with respect to any of the plural different types off color measuring devices (column 6, lines 17 through 66, and column 8, lines 13 through 47), a calibrate-sensor function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices (column 6, lines 17 through 61), a move-to-patch function to relatively position any of the color measuring sensors and a color patch (column 8, lines 13 through 67) being provided with a logical color patch number by the application program (column 98, lines 9 through 47), and a make-measurement function to make a color

measurement of the patch at which any of the color measuring sensors is relatively positioned (column 8, line 40 through column 9, line 5), the make-measurement function providing the application program with a color measurement value for the color patch (column 9, lines 1 through 5), wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices (see Fig. 2, column 6, lines 41 through 48, and column 7, lines 34 through column 8, line 47, wherein the registration mark processor 66 and the calibration unit 54 are called when scanner 18 is operated, whereas only the calibration unit 54 is called when operating measuring device 46), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 3, line 56 through column 4, line 14, column 6, lines 49 through 61, and column 7, lines 34 through 60).

Regarding ***claim 54***, Chao discloses the medium discussed above in claim 53, and further teaches that the calibrate-position function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct a user to position the recording medium or to position any of the color measuring sensors (column 7, lines 48 through 60, and column 8, lines 48 through 67).

Regarding ***claim 55***, Chao discloses the medium discussed above in claim 53, and further teaches that the calibrate-sensor function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct a user in calibrating the sensor (column 8, lines 14 through 67).

Regarding ***claim 56***, Chao discloses the medium discussed above in claim 53, and further teaches that the move-to-patch causes the color measuring device to move any of the color measuring sensors so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 48 through 67).

Regarding ***claim 57***, Chao discloses the medium discussed above in claim 53, and further teaches that the move-to-patch function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct a user to manipulate any of the color measuring devices so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 14 through 67).

Regarding ***claim 58***, Chao discloses the medium discussed above in claim 53, and further teaches that the move-to-patch function causes the color measuring device to move the recording medium so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 48 through 67).

Regarding ***claim 59***, Chao discloses the medium discussed above in claim 53, and further teaches that the move-to-patch function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct the user to move the recording medium so as to relatively position any of the color measuring sensors and the color patch (column 8, lines 14 through 67).

Regarding ***claim 60***, Chao discloses the medium discussed above in claim 53, and further teaches that the move-to-patch function provides the application program with a recalibrate value in a case that the relative position of the recording medium needs to be recalibrated (column 7, lines 23 through 60).

Regarding ***claim 61***, Chao discloses the medium discussed above in claim 53, and further teaches that the make-measurement function provides the application program with at least one display value that is to be displayed (registration marks, seen in Fig. 3, column 8, lines 6 through 47) so as to instruct the user in making the color measurement (column 8, lines 14 through 67).

Regarding ***claim 62***, Chao discloses the medium discussed above in claim 53, and further teaches that the make-measurement function provides the application program with a recalibrate value in a case that any of the color measuring sensors needs to be recalibrated (column 7, lines 23 through 60).

Regarding ***claim 63***, Chao discloses the medium discussed above in claim 53, and further teaches that the flow control data is provided by the function which must be called the number of times in order to complete the operation (column 6, lines 41 through 61, and column 8, lines 6 through 47).

Regarding ***claim 64***, Chao discloses the medium discussed above in claim 63, and further teaches that the flow control data is provided in the form of a call-again value (column 7, lines 34 through 47).

Regarding ***claim 65***, Chao discloses the medium discussed above in claim 63, and further teaches that the flow control data is provided in the form of a numerical value (column 7, lines 34 through 47).

Regarding ***claim 66***, Chao discloses the medium discussed above in claim 53, and further teaches that the plural functions further comprise a get-device-capabilities function to provide the application program with the flow control data (column 7, lines 23 through 47, and column 8, lines 32 through 37).

Regarding ***claim 67***, Chao discloses the medium discussed above in claim 53, and further teaches that the plural functions in the API call device driver functions for the plural different types of color measuring devices (column 7, lines 23 through 47).

Regarding ***claim 68***, Chao discloses the medium discussed above in claim 53, and further teaches that the computer-executable process steps are stored in a dynamically linkable library (column 9, lines 6 through 39).

Regarding ***claim 69***, Chao discloses the medium discussed above in claim 53, and further teaches that the plural different types of color measuring devices include XY tables and hand-held patch readers (column 1, lines 11 through 37, column 3, lines 2 through 33, and column 6, lines 31 through 66).

Regarding ***claim 70***, Chao discloses the medium discussed above in claim 53, and further teaches that the plural different types of color measuring devices include spectrometers and densitometers (column 6, lines 31 through 66).

Regarding ***claim 71***, Chao discloses the medium discussed above in claim 53, and further teaches that the application program is a color calibration program (see abstract, and column 9, lines 6 through 39).

Regarding ***claim 89***, Chao discloses a computer-readable medium (column 9, lines 6 through 39) storing a dynamically linkable library (DLL, interpreted as the image processing unit 14, seen in Fig. 4, and column 9, lines 6 through 27), with the DLL for making color measurements with any of plural different types of color measuring devices each having at least one color measuring sensor (see Figs. 1A and 2, and column 6, line 38 through column 7, line 9), the DLL comprising plural functions each of which is for operating any of the plural different

types of color measuring devices (column 6, line 38 through column 7, line 9, and column 7, line 61 through column 8, line 67), with the plural functions comprising a calibrate-position function to calibrate a relative position of a recording medium with respect to any of the plural different types of color measuring devices (column 6, lines 17 through 66, and column 8, lines 13 through 47), a calibrate-sensor function to calibrate any of the color measuring sensors of any of the plural different types of color measuring devices (column 6, lines 17 through 61), a move-to-patch function to relatively position any of the color measuring sensors and a color patch for any of the plural different types of color measuring devices (column 8, lines 13 through 67), the move-to-patch function being provided with a logical color patch number (column 98, lines 9 through 47), and a make-measurement function to make a color measurement of the patch at which any of the color measuring sensors is relatively positioned (column 8, line 40 through column 9, line 5), the make-measurement function providing the application program with a color measurement value for the color patch (column 9, lines 1 through 5), wherein in order to complete an operation performed by at least one of the plural functions, the function that performs the operation must be called a number of times which is different for at least two different types of color measuring devices (see Fig. 2, column 6, lines 41 through 48, and column 7, lines 34 through column 8, line 47, wherein the registration mark processor 66 and the calibration unit 54 are called when scanner 18 is operated, whereas only the calibration unit 54 is called when operating measuring device 46), and wherein for a color measuring device that is being operated, the API provides the application program with flow control data of the number of times that the function must be called (column 3, line 56 through column 4, line 14, column 6, lines 49 through 61, and column 7, lines 34 through 60).

Allowable Subject Matter

7. **Claims 27-43 and 72-88** are allowed.

8. The following is a statement of reasons for the indication of allowable subject matter:

Regarding ***claims 27 and 72***, in the examiner's opinion, it would not have been obvious to have the process steps, as claimed, further include the limitations of providing the application program with a call-again value in a case that the move-to patch function needs to be called multiple times to complete the relative positioning of the color measuring sensors; and providing the application program with a call-again value in a case that he make-measurement function needs to be called multiple times to complete making the color measurement of the color patch and has not been called the multiple times. The closest prior art Chao (U.S. Patent Number 6,404,517) fails to particularly teach these limitations. Because of that, the claims are rendered allowable.

Citation of Pertinent Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Kumada (U.S. Patent Number 6,337,922) discloses a color matching system that includes a scanner and a densitometer, being two color measuring devices;

Rijavec (U.S. Patent Number 6,256,111) discloses a system for calibrating a printer;

Mestha *et al.* (U.S. Patent Number 5,784,667) discloses a system having a plurality of densitometers for measuring test patches.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

J.R.P.

Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrp
February 4, 2003

Anh Vinh Nguyen

MADELEINE NGUYEN
PATENT EXAMINER

AU 2622